

CLAIMS

1. A wrench comprising a head portion defining a circular aperture, a split ring sprung into said aperture and having spaced-apart end portions and a handle pivotally coupled to said head portion for moving said end portions together, said split ring having an abutment portion and a camming portion, said abutment portion being adapted to cooperate with a complementary abutment portion formed in said head portion to limit the available rotation of the split ring within the aperture, and said camming portion being adapted to cooperate with a complementary part on said pivotal lever for moving the spaced-apart end portions of the split ring together when said abutment portion of the split ring is abutting the complementary abutment portion on the head portion, and spring means biasing said handle in a sense to close said spaced apart end portions of the split pin together with a force greater than the spring force developed by the split ring itself.
2. A wrench as claimed in claim 1, wherein the spring means biasing the handle is located in the coupling between the head portion and the handle.
3. A wrench as claimed in claim 2, wherein the spring means is located in a passage extending through the coupling and complimentary apertures in the handle.

4. A wrench as claimed in claim 2 or 3, wherein opposed ends of the spring means are associated with detent means.

5. A wrench as claimed in claim 4, wherein the detent means comprises a
5 ball located at each of two opposed ends of the spring means, respectively, for engagement with a respective protrusion on the head portion.

6. A wrench as claimed in claim 5, wherein each protrusion extends
towards the other in an elongate slotted portion of the head portion in which
10 an end portion of the handle is coupled to the head portion.

7. A wrench as claimed in claim 5 or 6, including two recesses on either
side of each protrusion for receiving therein a respective one of the balls when
the handle is in a drive or a reverse drive position.

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8. A wrench as claimed in any of claims 5 to 7 wherein each protrusion
extends from a planar side wall.

9. A wrench as claimed in any of claims 5 to 7, wherein each protrusion
20 extends from a planar side wall having a recess on either side of the
protrusion.

10. A wrench as claimed in any of claims 5 to 7, wherein the side walls from which the protrusion extends are substantially curved.

11. A wrench as claimed in any preceding claim, wherein the spring means
5 is a compression spring.

12. A wrench as claimed in any preceding claim, wherein the complimentary part on said pivotal lever for moving the spaced apart end portions of the split ring towards each other comprises end walls of a slot at
10 the inner-most end of the handle within the head portion, the slot extending in a transverse direction relative to a longitudinal axis of the handle.

13. A wrench as claimed in claim 9, wherein the spaced apart end portions of the split ring each comprise a land extending in both a radially outward
15 direction and a circumferential direction, to define a camming arm contiguous the split in the split ring and the abutment portion at the circumferentially opposed end of the land to the respective camming arm, wherein the camming arms project into the transverse slot of the handle for engagement, as necessary, by an end wall of the transverse slot.

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14. A wrench substantially as hereinbefore described with reference to, and as illustrated in Figs. 1 to 4, or Fig. 5 or Fig. 6 to 8 of the accompanying drawings.

15. A wrench comprising a head for engaging a fastener or fastening device and a handle for applying torque to the head to turn a fastener, a resilient split ring located in an aperture through the head, the split ring being sprung into
5 the aperture and operable by the handle between a first open position for free rotation of the wrench about the fastener or fastening devices, and a second closed position for clamping and moving the fastener, and detent means for automatically biasing the wrench into a closed position of the split ring, wherein the biasing force of the detent means is greater than the spring force
10 within the split ring.